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VOL. 22 No. 39 September 29, 1972

Cooperative Economic Insect Report

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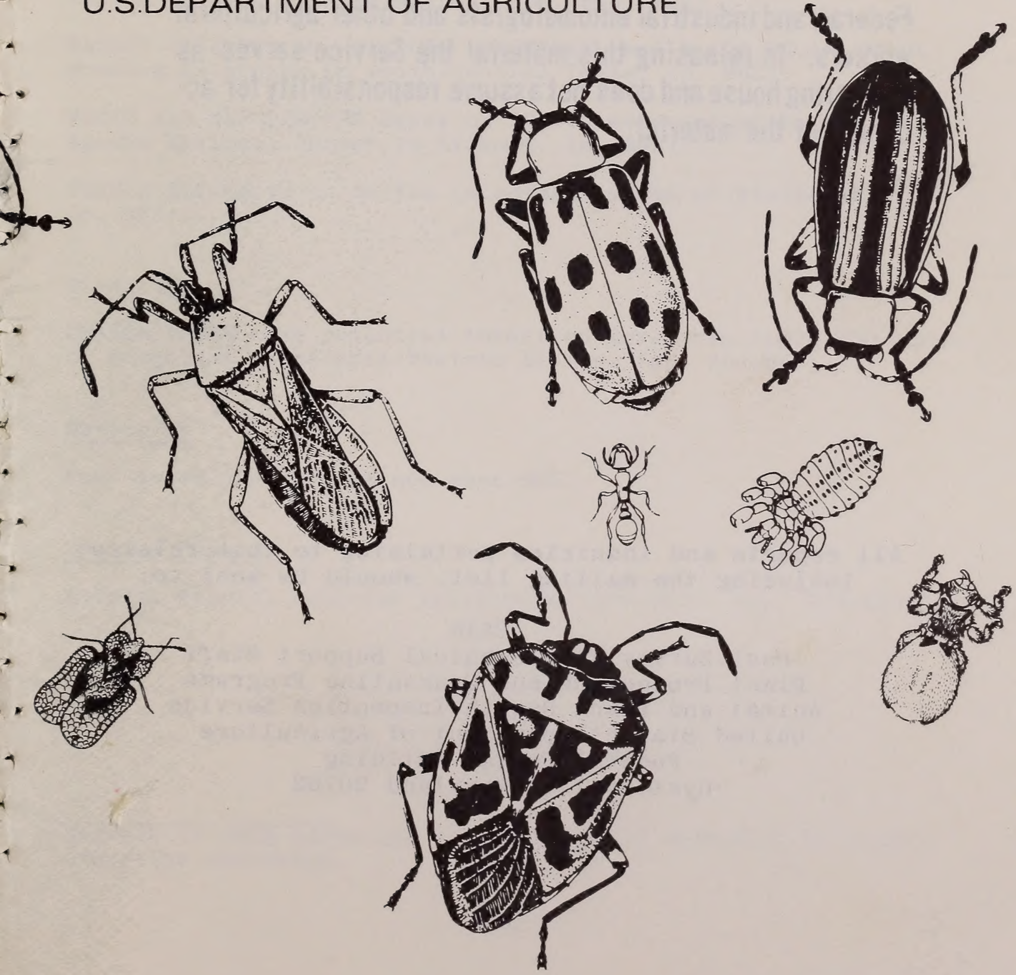

ANIMAL AND PLANT HEALTH INSPECTION SERVICE
PLANT PROTECTION AND QUARANTINE PROGRAMS
PEST SURVEY AND TECHNICAL SUPPORT STAFF

The Cooperative Economic Insect Report is issued weekly as a service to American Agriculture. Its contents are compiled from information supplied by cooperating State, Federal, and industrial entomologists and other agricultural workers. In releasing this material the Service serves as a clearing house and does not assume responsibility for accuracy of the material.

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Volume 22 September 29, 1972 Number 39

COOPERATIVE ECONOMIC INSECT REPORT

HIGHLIGHTS

Current Conditions

CORN EARWORM, in combination with other noctuids, damaged several thousand acres of soybeans and several hundred acres of field peas in Alabama. GREENBUG heavy on winter wheat in south-central South Dakota. (p. 657).

BOLL WEEVIL infestation in southern Georgia lowest for this date in several years. BANDEDWING WHITEFLY still threat to green cotton in area of Mississippi. (pp. 660, 661).

WALNUT CATERPILLAR, HICKORY SHUCKWORM, and BLACK PECAN APHID problem on pecans in south-central Texas. (p. 662).

WHITE FIR NEEDLEMINER heavy on 10,000 acres of white fir on Apache National Forest in Arizona. (p. 662).

STABLE FLY heavy on cattle in several areas of Wisconsin. (p. 663).

Prediction

GRASSHOPPERS pose potential threat on more than 6,000,000 acres of rangeland in several Western States. (pp. 664-665).

Detection

For new county records see page 665.

Special Reports

Alfalfa Weevil. Selected References 1970-1971. (pp. 670-674).

Reports in this issue are for week ending September 22 unless otherwise indicated.

CONTENTS

Special Insects of Regional Significance........................657

Insects Affecting

Corn, Sorghum, Sugarcane....658
Small Grains................659
Turf, Pastures, Rangeland...659
Forage Legumes..............659
Soybeans....................660
Cotton......................660
Potatoes, Tomatoes, Peppers.661
Beans and Peas.............661
Cole Crops.................661
Deciduous Fruits and Nuts..662
Small Fruits...............662
Forest and Shade Trees.....662
Man and Animals............663
Stored Products............664

Beneficial Insects..664
Federal and State Plant Protection Programs.....................664
Detection...665
Corrections...665
Hawaii Insect Report..666
Light Trap Collections..667
Alfalfa Weevil. Selected References 1970-1971...................669

WEATHER OF THE WEEK ENDING SEPTEMBER 25

Reprinted from Weekly Weather and Crop Bulletin supplied by Environmental Data Service, NOAA.

PRECIPITATION: Widely scattered thunderstorms occurred in the humid tropical air that streamed northward in the warm sector of the storm which was centered in southern Manitoba. Thunderstorms also occurred along fronts associated with storm. Torrential rains fell in northern Ohio Sunday night and early morning September 18. A storm in the Pacific Northwest brought rain to the coastal areas, nearby hills, and snow in the higher Cascades. Stampede Pass, Washington, measured 5 inches of snow on the ground Wednesday morning. A long band of thunder storms marked the advance of the strong cold front Wednesday forenoon. A front at the time reached from Lake Superior to the Texas Panhandle and was moving southeastward. Heavy rains, about 5 inches, drenched Duluth, Minnesota, causing local flooding. Hail and high winds occurred in Wisconsin and Minnesota. A large High pushed into the northern Great Plains shortly after midweek ending the rainy weather in that area. However, as the leading edge of the cold air migrated southeastward, it set off other thunderstorms. Heavy rains caused a light overflow of Rock River in northern Illinois Thursday. In the Texas Big Bend area, heavy rains caused the Rio Grande to rise above flood level. While a band of thunderstorms moved across the Great Plains, other air mass thunderstorms dotted the Deep South in hot sultry air that covered that region. Light to moderate showers fell from the Great Lakes to eastern Texas over the weekend. Weekly totals exceeded 5 inches in the extreme Northwest where the rainy season has definitely begun. Generous totals also occurred in northern Mississippi, nearby portions of neighboring States, and extreme southern Florida. The driest spots included California, southern New Mexico, southern Georgia, central and northeastern Wyoming, and western and central South Dakota.

Weather of the week continued on page 674.

SPECIAL INSECTS OF REGIONAL SIGNIFICANCE

CORN EARWORM (Heliothis zea) - ILLINOIS - Infestations in corn ear tips in east-southeast and southeast districts ranged 0-10 (averaged 5) percent. Ranged 0-20 (averaged 8) percent in southwest and west-southwest districts. (Ill. Ins. Rpt.). KANSAS - Larvae, mostly late instars, averaged 1.2 per head in soft dough stage sorghum in Linn County field; none seen in second field. None found in Miami County field; trace in one Johnson County field; second and third instars infested 5 percent of heads in Atchison County field; trace found in 2 fields each in Brown and Jackson Counties. Recent blacklight trap catches showed significant moth flights in Brown, Barton, and Finney Counties. (Bell). OKLAHOMA - Still present in several Payne County crops. Averaged 1 per 3 heads in grain sorghum, 2 per plant in peanuts, and light in alfalfa. (Okla. Coop. Sur.).

MISSISSIPPI - Averaged 1.5 per row foot in 80 acres of grain sorghum in Yalobusha County. (Sartor). ALABAMA - H. zea, Anticarsia gemmatalis (velvetbean caterpillar), and Pseudoplusia includens (soybean looper) damaged several thousand acres of soybeans in Baldwin and Mobile Counties. Heavy in several fields in Covington County. Two H. zea specimens taken in Talladega County where 15 spot surveys made. Occasional P. includens larva seen with fungus disease. (Turner et al.). H. zea and Trichoplusia ni (cabbage looper) damaged several hundred acres of commercial field peas in Geneva County. (Reynolds). VIRGINIA - H. zea moth collections in Accomack and Northampton Counties not high but consistent; about 10 per night taken past 7 days. Some small larvae observed in soybeans; several growers advised to treat. (Hofmaster). Very light in Middlesex County. (Edwards).

MARYLAND - H. zea larvae caused light damage to 60 acres of soybeans near Hurlock, Dorchester County, and Hebron, Wicomico County. Damaged pods ranged 3-5 per 20 row feet. Other fields on Eastern Shore remain below this damage level. (U. Md., Ent. Dept.). DELAWARE - Adults averaged 24 per night in blacklight trap collections for 5 locations in Sussex County. Infestations in untreated late season sweet corn averaged nearly 100 percent in this area. (Burbutis, Kelsey).

GREENBUG (Schizaphis graminum) - SOUTH DAKOTA - Very heavy on all stages of winter wheat in Tripp and Lyman Counties. Averaged 2,250 per 3 linear row feet in untreated winter wheat field south of Kennebec, Lyman County. Winter wheat just emerged from ground reported killed by feeding damage below soil surface. (Jones). KANSAS - Trace in volunteer wheat in Rice and Barton Counties, and in seeded wheat in Stafford County. (Bell). OKLAHOMA - Occasional specimens seen in seedling wheat in Major and Garfield Counties and in volunteer wheat in Woods County. (Okla. Coop. Sur.). WASHINGTON - Light on small plantings of sorghum and Sudan grass in Franklin and Benton Counties in late August. Scattered colonies on earliest planted wheat now present in same areas. (Klostermeyer).

SPOTTED ALFALFA APHID (Therioaphis maculata) - NEBRASKA - Light in four seedling alfalfa fields in Dawson and Keith Counties. Ranged up to 20 per 20 sweeps in one field, negligible in 15 other established alfalfa fields. (Manglitz, Keith). NORTH DAKOTA - Adults collected from alfalfa at rate of 4 per 100 sweeps in Dunn County. This is a new county record. (Brandvik).

TOBACCO BUDWORM (*Heliothis virescens*) - MISSISSIPPI - Eggs averaged 7 per terminal in 20 acres of pigeon peas (experimental cover crop) in Perry County. (Sartor).

CORN, SORGHUM, SUGARCANE

EUROPEAN CORN BORER (*Ostrinia nubilalis*) - KANSAS - Second-instar to full-grown larvae infested 95 percent of stalks in field of late sorghum in Linn County; population mixture of second and third generation. None found in second field of more mature sorghum. Trace third-generation infestation noted in sorghum field in Miami County; 15 percent of plants infested in Johnson County field (mostly third generation). Trace infestations found in sorghum in Brown, Atchison, and Jackson Counties. Also taken in Wallace and Gove Counties. Collected and determined by M. Shuman. These are new county records. (Bell). MINNESOTA - Second generation light in south-central and southeast districts. Plants with feeding damage averaged 53.6 percent; borers per 100 plants averaged 20.4. Most borers in fourth instar. Infestations found in ear tips. Very few shank infestations noted; this contrasts sharply from second generation of 1971. (Minn. Pest Rpt.).

ILLINOIS - Populations of *O. nubilalis* in field corn seem lighter than normal in 12 counties in southern third of State; 90 percent fifth instar. (Ill. Ins. Rpt.). DELAWARE - Adults decreased in blacklight trap collections, averaged 5 per night for 5 locations in Sussex County. (Burbutis, Kelsey). NORTH CAROLINA - Reduced yields of late corn in conjunction with low soil moisture. Up to 13 larvae per stalk seen in Robeson County. Lodging became serious problem in some heavily infested fields; however, generally below 5 percent of stalks infested. Harvest underway throughout Coastal Plain and Piedmont. (Hunt).

SOUTHWESTERN CORN BORER (*Diatraea grandiosella*) - ILLINOIS - Occasional infestations in field corn found in Saline, Alexander, and Pulaski Counties. Alexander County field averaged nearly 65 percent of plants infested; many toppled to ground. (Ill. Ins. Rpt.). ALABAMA - Damage moderate in 20-acre cornfield in Limestone County; damage heavy in several fields in Blount County. Last-generation larvae girdled stalks just above ground; toppled to ground. (Patterson, Loyd).

SORGHUM WEBWORM (*Celama sorghiella*) - KENTUCKY - Larvae averaged 5 per head on late planted grain sorghum in Butler County. (Barnett, Raney).

CORN ROOTWORMS (*Diabrotica* spp.) - IDAHO - *D. virgifera* (western corn rootworm) continued active on mature corn in Franklin County. (Sandvol). WISCONSIN - Specimen of *D. virgifera* taken from corn in Barron County. Determined by R.E. White. This is a new county record. (Wis. Ins. Sur.). NORTH CAROLINA - *D. undecimpunctata howardi* (southern corn rootworm) caused heaviest damage to peanuts in Halifax and Northampton Counties. Damage completed. Little reduction in loss to be achieved by treating this late. (Hunt).

SORGHUM MIDGE (*Contarinia sorghicola*) - KANSAS - Adults ranged 2-10 per blooming head in late sorghum in Allen and Linn Counties; up to 50 per head in one field in Miami County. Trace numbers seen on blooming sorghum in one field each in Johnson and

Atchison Counties. Adults averaged 3-4 per blooming head on Johnson grass in Allen County. (Bell). MISSISSIPPI - Averaged 10 per head in one grain sorghum field in Oktibbeha County. (Robinson).

SMALL GRAINS

FALL ARMYWORM (Spodoptera frugiperda) - OKLAHOMA - Heavy in seedling wheat in Payne, Noble, Kay, and Jackson Counties. Damaged wheat in Tulsa County. Larvae ranged first to third instar in Kay County and first to fifth instar in Payne County. Light in Grant, Garfield, and Woodward Counties. (Okla. Coop. Sur.).

TURF, PASTURES, RANGELAND

SOUTHERN CHINCH BUG (Blissus insularis) - TEXAS - Still problem in some lawns throughout Coastal Bend area and in Brazos and Burleson Counties. Some controls applied. (Cole, Green). CALIFORNIA - Infested Saint Augustine grass lawn at Stockton, San Joaquin County. Collected by C. Witherspoon and L. Hawkins. Determined by A. Hardy. This is a new county record. Pest now occurs in Orange, Los Angeles, Riverside, Sacramento, and San Joaquin Counties. (Cal. Coop. Rpt.).

FALL ARMYWORM (Spodoptera frugiperda) - ALABAMA - Larvae damaged several fields of grass hay in Washington County. (Estes).

WESTERN FLOWER THRIPS (Frankliniella occidentalis) - UTAH - Very heavy in Chrysothamnus (rabbitbrush) blossoms in Snowville area of Box Elder County, and in Logan, Green, and Box Elder Canyons of Cache County. (Knowlton).

FORAGE LEGUMES

ALFALFA WEEVIL (Hypera postica) - NORTH DAKOTA - Half-grown larvae averaged 8 per 100 sweeps in third-crop, irrigated alfalfa in McKenzie County. Adults averaged 56 per 100 sweeps in same fields. (Brandvik). NEBRASKA - Eleven adults and 17 larvae per 100 sweeps taken in 16 Dawson County alfalfa fields. (Manglitz, Keith). WISCONSIN - Specimens taken from alfalfa during late June in Pierce, Chippewa, Dunn, Eau Claire, Polk, Barron, and St. Croix Counties. Determined by R.E. Warner. These are new county records. (Wis. Ins. Sur.).

PEA APHID (Acyrthosiphon pisum) - NEBRASKA - Ranged 2-20 per 20 sweeps in 16 Dawson County alfalfa fields. (Manglitz, Keith).

ALFALFA LEAF BLOTCH-MINER (Agromyza frontella) - MASSACHUSETTS - Infestations in a mature untreated Berkshire County alfalfa field dropped from 16 percent to 5 percent in 14 days. Most mines in lower, older leaflets. (Jensen).

ALFALFA CATERPILLAR (Colias eurytheme) - NEW MEXICO - Heavy adult flights seen on alfalfa in northern Eddy County around Artesia. (N.M. Coop. Rpt.).

SOYBEANS

MEXICAN BEAN BEETLE (Epilachna varivestis) - MARYLAND - Adults and larvae caused moderate to heavy defoliation (30-60 percent) in several hundred acres in Wicomico, Somerset, and Worcester Counties. Damage considered noneconomic as most beans filled before defoliation became moderate. (U. Md., Ent. Dept.). VIRGINIA - Built up in Middlesex County on late and early soybeans; many fields sprayed. (Edwards).

BEAN LEAF BEETLE (Cerotoma trifurcata) - OKLAHOMA - Heavy in Wagoner County soybeans. (Okla. Coop. Sur.).

CABBAGE LOOPER (Trichoplusia ni) - MISSISSIPPI - Ranged light to heavy in 2,000 acres in Issaquena County; light in 850 acres in Clay County. (Robinson). OKLAHOMA - Damaged soybeans in Wagoner County. (Okla. Coop. Sur.).

SOUTHERN GREEN STINK BUG (Nezara viridula) - KENTUCKY - Averaged 42 per 360 row feet in Henderson County. (Barnett, Raney).

COTTON

BOLL WEEVIL (Anthonomus grandis) - OKLAHOMA - Punctured square counts ranged 0-21 percent in south-western area, adults common in blooms. Counts ranged 1-26 percent in Muskogee County; still averaged 100 percent in remaining squares in Caddo and Washita Counties. (Okla. Coop. Sur.). TEXAS - Weevils active in fields on east side of St. Lawrence area, Glasscock County. Punctured squares ranged 10-15 percent. No weevil activity detected on north side of St. Lawrence area. Producers in northern Glasscock County and east of Garden City plan to initiate diapause control program. (Neeb). GEORGIA - Infestation lowest for this date in several years in southern area. (Womack).

BOLLWORMS (Heliothis spp.) - ARKANSAS - H. virescens heavy in extreme southeast area since early August. Moths appeared on sugar line in Jackson County in early September. Heliothis spp. moth flight very heavy in Jackson County September 15 and 19. None to very few moths observed on sugar lines in Mississippi County all season in extreme northeast area. Heliothis spp. larvae appeared in late cotton in this area. (Boyer). OKLAHOMA - Counts of Heliothis spp. damaged squares ranged 0-12 percent in southwestern area, 14 percent in Caddo and Washita Counties. Damaged boll counts ranged 1-20 percent in Wagoner, Muskogee, and Bryan Counties. Eggs and small larvae still common in terminals in most areas. (Okla. Coop. Sur.).

TEXAS - H. zea ranged moderate to heavy across cotton area. Damage 5-20 percent in El Paso County. Pecos and Reeves Counties report heavy egg pressure, 5-25 larvae per 100 plants, and 4-20 percent damage to squares and bolls. Heavy activity across Glasscock County, 10-20 percent damaged fruit. Midland, Martin, Upton, and Reagan Counties report 15-50 eggs per 100 plant terminals, 3-15 larvae per 100 plants, and 5-25 percent damaged squares and bolls. (Neeb). MISSISSIPPI - Heliothis spp. infestations ranged 0-8 percent in 500 acres in Issaquena County; eggs 60 percent and larvae 3 percent in 100 acres in Lowndes County. (Robinson). GEORGIA - Egg laying and infestations decreased in southern area. (Womack).

CABBAGE LOOPER (*Trichoplusia ni*) - ALABAMA - Larvae moved further north in State in heavier numbers than in over 10 years. Present in most cotton, but damage questionable. Virus condition in larvae apparently exerted less control than in most years. (McQueen).

BEET ARMYWORM (*Spodoptera exigua*) - MISSISSIPPI - Light to heavy in 500 acres of cotton in Issaquena County; 16 larvae recovered from 1 white bloom. (Robinson).

BANDEDWING WHITEFLY (*Trialeurodes abutilonea*) - MISSISSIPPI - Moderate to heavy in 1,000 acres in Issaquena County; still threat in Coahoma County green cotton. (Robinson).

POTATOES, TOMATOES, PEPPERS

VINEGAR FLIES (*Drosophila* spp.) - MARYLAND - Increased in late season tomatoes. Damaged about 10 percent of fruit in most fields contaminated with eggs and larvae. (U. Md., Ent. Dept.).

BEANS AND PEAS

SOYBEAN LOOPER (*Pseudoplusia includens*) - TENNESSEE - Immatures infested snap beans in Crossville area, Cumberland County. Will cause beans to be rejected at processing plant. (Mullett, Burgess).

CABBAGE LOOPER (*Trichoplusia ni*) - KENTUCKY - Second and third-instar larvae in scattered "hot spots" damaged 525 acres of snap beans in Wayne County. (Barnett, Gregory).

COLE CROPS

CABBAGE LOOPER (*Trichoplusia ni*) - MISSISSIPPI - Heavy in 25 acres of greens and collards in Leake County. Some plants killed. (Robinson).

CABBAGE WEBWORM (*Hellula rogatalis*) - ALABAMA - Larval feeding destroyed collards on 20-acre commercial planting in Jefferson County. (Smith).

DECIDUOUS FRUITS AND NUTS

WALNUT CATERPILLAR (Datana integerrima) - MISSISSIPPI - Caused partial defoliation of hickory in Winston County. (Robinson). TEXAS - Heavy on pecans in eastern and south-central areas. Second-generation larvae defoliated most pecan trees in Liberty County during early September. Almost daily showers in Liberty County and other surrounding eastern counties hampered control. Infestations seen in Guadalupe, Gonzales, De Witt, Goliad, and Victoria Counties. (Tiller, Cole). OKLAHOMA - Heavy in Bryan and Pontotoc Counties; averaged about 1 colony per 5 trees in Payne County. (Okla. Coop. Sur.).

FALL WEBWORM (Hyphantria cunea) - TEXAS - Heavy infestations defoliated pecans in Crockett, Ward, and Winkler Counties of Trans-Pecos area. Some infestations in far western areas resulted in complete webbing of trees. Increased infestations damaged pecans in Brazos County. (Neeb, Green).

HICKORY SHUCKWORM (Laspeyresia caryana) - TEXAS - Damage appeared as pecans matured throughout most south-central areas. Infested counties include Guadalupe, Gonzales, De Witt, Goliad, and Victoria. (Cole).

PECAN WEEVIL (Curculio caryae) - OKLAHOMA - Adult emergence decreased in Payne County; still emerging in Tulsa County. (Okla. Coop. Sur.).

BLACK PECAN APHID (Tinocallis caryaefoliae) - TEXAS - Damaged pecans in Gonzales, De Witt, and Victoria Counties. (Cole. ALABAMA - This species and Monellia spp. (yellow aphids) built up to damaging populations on commercial pecan trees in Elmore, Lowndes, Lee, Baldwin, Bullock, Washington, and Covington Counties. (Morris et al.).

BLACKMARGINED APHID (Monellia costalis) - MISSISSIPPI - Controls applied on pecans in Coahoma County. (Robinson).

SMALL FRUITS

GRAPE BERRY MOTH (Paralobesia viteana) - OHIO - Second-generation larvae found in untreated or improperly treated vineyards. Eggs and all larval stages found in Lake County September 8; only parasitized eggs found 14 days later. No second-brood buildup found in adequately treated vineyards. (Still).

FOREST AND SHADE TREES

WHITE FIR NEEDLEMINER (Epinotia meritana) - ARIZONA - Caused heavy defoliation on 10,000 acres of white fir on Apache National Forest 30 miles south of Springerville, Apache County. Estimated 50 percent of needles mined. (Ariz. Coop. Rpt.).

A GEOMETRID MOTH (Lambdina pellucidaria) - MASSACHUSETTS - Larvae moderate on pines in southeastern part of State. (Mankowski).

FALL WEBWORM (Hyphantria cunea) - OHIO - Statewide survey showed heaviest infestations in eastern part of State where serious defoliation occurred in many east-central and northeastern counties. In western areas, infestation generally light. Defoliation of no major concern except in some small isolated areas. (Fox). NEW MEXICO - Heavy on cottonwood, mulberry, poplar, and other species of shade trees in southern areas. (N. M. Coop. Rpt.).

VARIABLE OAKLEAF CATERPILLAR (Heterocampa manteo) - ARKANSAS - Heavy populations did not develop in 1972 as during past two years. Species apparently returned to more normal pattern. (Boyer). MISSOURI - Ornamental oaks defoliated in spots around cities in southeast area. Light feeding seen on wild oaks. (Munson).

MAPLE LEAFCUTTER (Paraclemensia acerifoliella) - NEW HAMPSHIRE - Damaged sugar maples on estimated 50 acres in Sullivan County. (Mason, Morse).

MIMOSA WEBWORM (Homadaula anisocentra) - OKLAHOMA - Light on mimosa in Morrison, Noble County. This is a new county record. (Okla. Coop. Sur.).

ORANGESTRIPED OAKWORM (Anisota senatoria) - MICHIGAN - Larvae locally heavy on individual specimen trees in Calhoun and Kalamazoo Counties. (Sauer).

MAN AND ANIMALS

SCREWWORM (Cochliomyia hominivorax) - Total of 4,669 confirmed cases reported in continental U.S. during period September 10-16 as follows: Texas 4,200; New Mexico 159; Arizona 201; Oklahoma 109. Total of 1,247 confirmed cases reported in Mexico. Number of sterile flies released in U.S. this period totaled 171,626,000 as follows: Texas 150,148,000; New Mexico 5,140,000; Arizona 15,688,000; California 650,000. Total of 28,220,000 sterile flies released in Mexico. (Anim. Health).

FACE FLY (Musca autumnalis) - KENTUCKY - Adult average per animal on mixed breeds of cattle by county: Jessamine 10.8, Fayette 15.0, Bourbon 7.5 and Scott (one location) 18.5. (Barnett). ILLINOIS - Averaged 5.6 per animal on untreated pastured beef and dairy cattle in northern area. (Ill. Ins. Rpt.).

STABLE FLY (Stomoxys calcitrans) - ILLINOIS - Averaged 22.4 per animal on untreated pastured beef and dairy cattle in northern area. Unusually heavy; summer populations ranged 6-10 per animal. (Ill. Ins. Rpt.). WISCONSIN - Moderate to heavy on cattle in Chippewa, Columbia, Rock, Wood, Walworth, and Bayfield Counties. (Wis. Ins. Sur.).

HORN FLY (Haematobia irritans) - MISSISSIPPI - Ranged 75-100 per cow in Issaquena County, 1,000+ on 15 head in Monroe County (Robinson). OKLAHOMA - Averaged 300 per head on cattle in Payne County. Heavy in Craig and Pontotoc Counties, moderate to heavy in Woodward County, and moderate in Pawnee County. (Okla. Coop. Sur.). ILLINOIS - Averaged 28 per animal on untreated pastured beef and dairy cattle in northern area. (Ill. Ins. Rpt.).

MOSQUITOES - OHIO - Aedes vexans and Culex p. pipiens annoying in various areas throughout northern section. Potential for continued breeding extremely favorable due to heavy rains. Annoyance by adult mosquitoes emerging from flooded areas will depend on favorable temperatures at dusk. (Rings). WISCONSIN - Mosquito populations heaviest ever. Heavy rainfall added to existing problem of standing water in low areas. Expected to remain major nuisance until freezing weather. Annoyance to humans and cattle heavy in all areas. (Wis. Ins. Sur.). MINNESOTA - Aedes vexans still dominant species in light trap and bite collections in Metropolitan Mosquito Control District; accounted for 80 and 40 percent, respectively, of catches. Culex p. pipiens, C. restuans, C. salinarius, C. tarsalis, and C. territans present in small numbers in trap collections. Two egg samples from Ramsey County showed 93 percent diapause when submersed in laboratory. (Minn. Pest Rpt.).

UTAH - Mosquitoes, mainly A. dorsalis, very heavy and annoying from Locomotive Springs north through Curlew and Hansel Valleys, past Snowville in Box Elder County. Annoying also in Cache and Davis Counties. Mosquitoes annoying horses near Collinston, Box Elder County. (Knowlton). CALIFORNIA - Heavy in Sacramento, Sacramento County, and adjacent areas. Draining of rice paddies in rice-growing areas resulted in heavy populations. (Cal. Coop. Rpt.).

BROWN DOG TICK (Rhipicephalus sanguineus) - NEVADA - Heavy in Las Vegas area, Clark County, with much treating underway. (Zoller).

STORED PRODUCTS

INDIAN MEAL MOTH (Plodia interpunctella) - OHIO - Moderate to heavy in bin of wheat in Pickaway County elevator. Considered most troublesome of grain infesting moths. (Fox, September 15).

BENEFICIAL INSECTS

AN ENCYRTID WASP (Ooencyrtus kuwanai) - SOUTH CAROLINA - Total of 20,000 specimens of this egg parasite of Porthetria dispar (gypsy moth) released in Horry County where male moths trapped earlier this season. (McKee).

LADY BEETLES - COLORADO - Various species heavy in Pueblo County alfalfa fields. (Colo. Ins. Sur.).

FEDERAL AND STATE PLANT PROTECTION PROGRAMS

EUROPEAN CRANE FLY (Tipula paludosa) - WASHINGTON - Survey of pasture near Custer, Whatcom County, showed development on September 11 to be 3.48 percent pupae and 96.6 adults. (Jackson).

GRASSHOPPERS - NEW MEXICO - Heavy on rangeland in Lincoln, Chaves, Eddy, and Lea Counties. Over 3,000,000 acres heavily infested. (N. M. Coop. Rpt.). COLORADO - Adult surveys reveal 53,140 acres of cropland and 580,120 acres of rangeland infested in eastern areas. Pueblo and Fremont Counties have largest area of threatening infestations. (Colo. Ins. Sur.). MONTANA - Adult survey showed counts of 8+ per square yard on total of 187,300 acres in 14 counties. Melanoplus sanguinipes, M. bivittatus, Camnula pellucida, and M. packardii dominant species. (Pratt).

IDAHO - Fall adult grasshopper surveys indicate potential control may be needed on 2,130,000 acres of which 749,160 acres are private and State land and 1,381,000 acres public domain. About 750,000 acres are in Lincoln, Blaine, and Minidoka Counties. Numerous aerial migrations observed all season. (Pollard). WASHINGTON - Adult survey showed statewide economic populations (8 or more per yard) on total of 1,044,780 acres. Suggests serious potential problems in 1973 growing season. (PP).

MORMON CRICKET (Anabrus simplex) - MONTANA - Scattered crickets found in Rosebud, Meagher, Stillwater, and Lake Counties. Small bands found in Sanders and Powell Counties. (Pratt).

GYPSY MOTH (Porthetria dispar) - See "AN ENCYRTID WASP" under BENEFICIAL INSECTS page 664.

JAPANESE BEETLE (Popillia japonica) - TENNESSEE - Adult trapped at rest stop on U.S. Interstate Route 40 in Benton County September 20, 1972. (Steele). Previously collected in this county in 1971. (PP).

PINK BOLLWORM (Pectinophora gossypiella) - TEXAS - Infested bolls ranged 5-45 percent in El Paso County. Light to moderate moth activity indicated by hexalure trap catches in Pecos Valley and in Upton and Glasscock Counties. Boll infestations in Pecos Valley area ranged 5-55 percent. Glasscock County reported 5-15 percent infested bolls. (Neeb). NEW MEXICO - Checks in extreme southern Dona Ana County revealed one or two fields with larvae in bolls ranging up to 30 percent. (N. M. Coop. Rpt.). ARIZONA - Infested 85 percent of bolls in 60 acres of long staple cotton at Safford, Graham County. Controls applied in Graham, Maricopa, Pinal, and Yuma Counties. (Ariz. Coop. Sur.).

DETECTION

New County Records - ALFALFA WEEVIL (Hypera postica) WISCONSIN - Pierce, Chippewa, Dunn, Eau Claire, Polk, Barron, St. Croix (p. 659). EUROPEAN CORN BORER (Ostrinia nubilalis) KANSAS - Wallace, Gove (p. 658). MIMOSA WEBWORM (Homadaula anisocentra) OKLAHOMA - Noble (p. 663). SOUTHERN CHINCH BUG (Blissus insularis) CALIFORNIA - San Joaquin (p. 659). SPOTTED ALFALFA APHID (Therioaphis maculata) NORTH DAKOTA - Dunn (p. 657). WESTERN CORN ROOTWORM (Diabrotica virgifera) WISCONSIN - Barron (p. 658).

CORRECTIONS

CEIR 22(36):607 - JAPANESE BEETLE (Popillia japonica) - IOWA - should read: "...Black Hawk County collection is first time this pest trapped in State since 1958..."

Corn - CORN PLANTHOPPER (Peregrinus maidis) and CORN LEAF APHID (Rhopalosiphum maidis) light to moderate in 3 acres of nearly mature sweet corn at Waimanalo, Oahu. Predators nil. CHINESE ROSE BEETLE (Adoretus sinicus) damage heavy to many plants up to 15 yards in from perimeter of this planting; damage nil in midfield. (Kawamura).

General Vegetables - GREENHOUSE WHITEFLY (Trialeurodes vaporariorum) light to moderate in 0.3 acre of bitter melon at Waimanalo, Oahu; trace in 5,000 square-foot planting of same crop at Pearl City. TARO LEAFHOPPER (Tarophagus proserpina) light in 5 acres of taro at Waipahu, Oahu; averaged less than 4 nymphs or adults per plant. A MIRID BUG (Cyrtorhinus fulvus), an egg predator, light in terminal leaf sheaths. WATERLILY APHID (Rhopalosiphum nymphaeae) generally light; small, isolated moderate populations in some paddies. CABBAGE WEBWORM (Hellula rogatalis) light in 0.1 acre of daikon at Waimanalo, Oahu; about 13 percent of terminals with one or more larvae. Infestation heavy in 0.1 acre of same crop at Pearl City; about 80 percent of young plants infested. (Kawamura). LEAFMINER FLIES (Liriomyza spp.) and BEET ARMYWORM (Spodoptera exigua) light in green onion fields at Waimanalo and Pearl City, Oahu; average of less than 15 percent of leaves lightly affected by one or both species. (Kawamura). Larval mines of Liriomyza spp. heavy in one acre of young cucumber plants at Wailua, Kauai. (Ikehara, Kawamura).

Fruits and Nuts - FLORIDA RED SCALE (Chrysomphalus aonidum) light on 20 coconut trees at Kahului, Maui; 25 percent of leaves infested with average of 2.5 scales per leaf. (Miyahira). COCONUT SCALE (Aspidiotus destructor) generally light to moderate in small commercial planting of bananas at Pearl City, Oahu; heavy on few older leaves. Nymphs and adults of Lindorus lophanthae and Telsimia nitida (lady beetles) moderate on infested leaves. No specimens of Pseudoscymnus anomolus (a lady beetle) noted in planting. P. anomolus introduced from Guam and released in February 1971 in this area. Releases also made at Hawaii Kai where recovery made for first time during second week of September. (Kawamura).

Ornamentals - A LEAFCUTTING BEE (Megachile sp.) caused heavy foliar damage to Cassia sp., Eucalyptus sp., and Thespia populnea saplings in nursery at Kahului, Maui. Similar damage to yard rose bushes in same area. (Miyahira).

Miscellaneous Pests - VAGRANT GRASSHOPPER (Schistocerca vaga) caused heavy foliar damage to yard planting of Podocarpus sp. and Hibiscus sp. at Salt Lake, Oahu; 5 nymphs observed feeding on Hibiscus sp. S. vaga first reported on Oahu in August 1964 but has remained noneconomic, feeding mainly on wasteland kiawe and slender mimosa. During the past few months isolated, unconfirmed reports of feeding on Citrus have been received. (Kajiwara).

LIGHT TRAP COLLECTIONS

	Tempera-ture °F.	Precip-itation (inches)	Type of trap BL = blacklight I = incandescent MV = mercury vapor O = other	*Agrotis ipsilon* (black cutworm)	*Estigmene acrea* (saltmarsh caterpillar)	*Euxoa auxiliaris* (army cutworm)	*Faronta diffusa* (wheat head armyworm)	*Feltia subterranea* (granulate cutworm)	*Heliothis virescens* (tobacco budworm)	*H. zea* (bollworm, corn earworm, tomato fruitworm)	*Laspeyresia pomonella* (codling moth)	*Loxostege commixtalis* (alfalfa webworm)	*Loxostege rantalis* (garden webworm)	*Loxostege sticticalis* (beet webworm)	*Manduca quinquemaculata* (tomato hornworm)	*Manduca sexta* (tobacco hornworm)	*Ostrinia nubilalis* (European corn borer)	*Peridroma saucia* (variegated cutworm)	*Pseudaletia unipuncta* (armyworm)	*Spodoptera exigua* (beet armyworm)	*Spodoptera frugiperda* (fall armyworm)	*Spodoptera ornithogalli* (yellowstriped armyworm)	*Trichoplusia ni* (cabbage looper)	Crops
FLORIDA																								
Gainesville 9/15-21			BL	19				20	1	23								3	12	165	23	6	1	
KANSAS																								
Great Bend 9/7-21			BL			3	43			201								5	150		3	5		
Hiawatha 9/18			BL				32			192							232		32			64	8	
Tribune 9/11,12,14,18			BL			26	120			32								3	44			11		
KENTUCKY																								
Bowling Green 9/19			BL							2									4			3		
Lexington 9/20			BL							2														
Princeton 9/18-22			BL													102								
MISSISSIPPI (County)																								
Washington 9/15-21			BL	28	11			54	284	1142					1				7	3640		73		
NEBRASKA																								
Plymouth 9/13			BL	20						197					2	3	204	5	95		20	12		
NEW HAMPSHIRE (County)																								
Strafford 9/18			BL															1	1					
NEW JERSEY																								
Jones Island 9/14-20			BL							98													15	
Seabrook 9/14-20			BL							184													34	
Vineland 9/14-20			BL							45													3	
OHIO																								
Wooster 9/15-21			BL	22						21							1	46	44		218		1	
OREGON (County)																								
Marion 9/14-20			BL	4														5						
PENNSYLVANIA (District)																								
Central 9/7-18			BL	80						1					1		9	23	24			1		
Southeast 9/7-18			BL	10													4		17					
Southwest 9/7-18			BL	15						26							30	25	68			1		
TENNESSEE (County)																								
Dyer 9/18-22			BL	7				12	2	286							8	1	14	7	8	8	41	
Madison 9/18-22			BL	42				4	9	203					2		13	2	34	22	2	17	332	
Shelby 9/18-22			BL	28				4	8	181					4	11	7	6	15	97	2	22	72	

LIGHT TRAP COLLECTIONS

	Tempera-ture °F.	Precip-itation (inches)	Type of trap BL = blacklight I = incandescent MV = mercury vapor O = other	*Agrotis ipsilon* (black cutworm)	*Estigmene acrea* (saltmarsh caterpillar)	*Euxoa auxiliaris* (army cutworm)	*Faronta diffusa* (wheat head armyworm)	*Feltia subterranea* (granulate cutworm)	*Heliothis virescens* (tobacco budworm)	*H. zea* (bollworm, corn earworm, tomato fruitworm)	*Laspeyresia pomonella* (codling moth)	*Loxostege commixtalis* (alfalfa webworm)	*Loxostege rantalis* (garden webworm)	*Loxostege sticticalis* (beet webworm)	*Manduca quinquemaculata* (tomato hornworm)	*Manduca sexta* (tobacco hornworm)	*Ostrinia nubilalis* (European corn borer)	*Peridroma saucia* (variegated cutworm)	*Pseudaletia unipuncta* (armyworm)	*Spodoptera exigua* (beet armyworm)	*Spodoptera frugiperda* (fall armyworm)	*Spodoptera ornithogalli* (yellowstriped armyworm)	*Trichoplusia ni* (cabbage looper)	Crops
TEXAS																								
Waco 9/14-21			BL	24				87		1187								22	184	1000	28	27	1087	
VIRGINIA																								
Charlotte Court House 9/6-18			BL	36						142					19	25	51		203					
Holland 9/7-18			BL	6						95					1		19		80					
Warsaw 9/8-19			BL	33						114					15	5	26		104					
WISCONSIN																								
Hartford 9/12-18			BL														11		52					
Lancaster 9/12-19			BL	4						14							18	15	31					
Mazomanie 9/14-19			BL							9							7		7					

ALFALFA WEEVIL
Hypera postica (Gyllenhal)

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Coop. Econ. Ins. Rpt.
22(39):669-673,1972

Weather of the week continued from page 656.

TEMPERATURE: A low was centered over southern Manitoba early in the week. A front trailed southward up the Red River of the North. A cold front extended from near Grand Forks, North Dakota, toward Colorado and a warm front stretched from the Grand Forks vicinity to South Carolina. Hot, humid air covered a warm sector of the Low. Afternoon temperatures reached the 90's over much of the warm sector. Grand Island, Nebraska, registered 100 degrees Monday afternoon and Aberdeen, South Dakota, 98 degrees Tuesday. A high relative humidity made the air feel more uncomfortable. A quick change in the weather occurred Wednesday as cold air advanced over the northern and central Great Plains. Afternoon temperatures at Jamestown, North Dakota, were: Tuesday 94 degrees, Wednesday 70 degrees, and Thursday 60 degrees. Temperature changes over the South were less drastic. Daily maximums at Memphis, Tennessee, Tuesday to Thursday were 96, 91, and 88 degrees. The desert Southwest continued hot. Thermal and Blythe, both in California, registered 104 degrees Thursday. Subfreezing weather occurred in spots in the northern and central Rocky Mountains and parts of the Great Basin on some mornings. Big Piney, Wyoming, recorded 13 degrees Thursday morning. The weekend was cool over most of the Nation. Subfreezing temperatures occurred over the northern Rocky Mountains and the western edge of the northern Great Plains. Afternoon temperatures remained in the 40's and 50's over most of Montana and North Dakota Sunday. Although autumn made a good beginning over the North, summer weather continued in the South. Parts of Mississippi averaged more than 5 degrees above normal. Maximum temperatures in Mississippi were mostly in the high 90's early in the week, low 90's over the weekend.

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